Claims

1. (Canceled)

2. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, further comprising a resource manager operable to receive outgoing resource requests from the call agent, and provide outgoing resource availability responses to the call agent.

3. (Currently Amended) A softswitch interconnecting networks of different transport protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call model event, and route the call model event; and

a call agent in communication with the signaling agent and operable to receive the call model event, request outgoing resources for establishing data sessions, generate outgoing signaling messages, and send the outgoing signaling messages to the signaling agent, the signaling agent further terminating the data sessions on the requested outgoing resources; and

~~The softswitch, as set forth in claim 1,~~ further comprising a network directory server operable to receive requests for routing information to establish data sessions from the call agent, and provide routing information to the call agent.

4. (Currently Amended) A softswitch interconnecting networks of different transport protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call model event, and route the call model event; and

a call agent in communication with the signaling agent and operable to receive the call model event, request outgoing resources for establishing data sessions, generate outgoing signaling messages, and send the outgoing signaling messages to the signaling agent, the signaling agent further terminating the data sessions on the requested outgoing resources; and

~~The softswitch, as set forth in claim 1,~~ further comprising a network directory server operable to receive requests for address resolution to establish data sessions from the call agent, and provide address resolution responses to the call agent.

5. (Currently Amended) A softswitch interconnecting networks of different transport protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call model event, and route the call model event; and

a call agent in communication with the signaling agent and operable to receive the call model event, request outgoing resources for establishing data sessions, generate outgoing signaling messages, and send the outgoing signaling messages to the signaling agent, the signaling agent further terminating the data sessions on the requested outgoing resources; and

~~The softswitch, as set forth in claim 1,~~ further comprising a network gateway operable to receive requests for address locations of called parties in external networks to establish data sessions from the call agent, and provide the address locations to the call agent.

6. (Currently Amended) A softswitch interconnecting networks of different transport protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call model event, and route the call model event; and

a call agent in communication with the signaling agent and operable to receive the call model event, request outgoing resources for establishing data sessions, generate outgoing signaling messages, and send the outgoing signaling messages to the signaling agent, the signaling agent further terminating the data sessions on the requested outgoing resources; and

~~The softswitch, as set forth in claim 1,~~ wherein the signaling agent comprises:

a logic control executing a logic control program and operable to process signaling messages of a particular signaling protocol;

a codec specialized in the signaling protocol of an access network and operable to parse and format signaling messages according to the signaling protocol; and

a filter operable to filter and route signaling messages from the codec to the logic control.

7. (Original) The softswitch, as set forth in claim 6, wherein the signaling protocol is SS7.

8. (Original) The softswitch, as set forth in claim 6, wherein the signaling protocol is session initiation protocol.

9. (Original) The softswitch, as set forth in claim 6, wherein the signaling protocol is H.323.

10. (Currently Amended) A softswitch interconnecting networks of different transport protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call model event, and route the call model event; and

a call agent in communication with the signaling agent and operable to receive the call model event, request outgoing resources for establishing data sessions, generate outgoing signaling messages, and send the outgoing signaling messages to the signaling agent, the signaling agent further terminating the data sessions on the requested outgoing resources; and

~~The softswitch, as set forth in claim 1,~~ further comprising a network gateway which comprises:

a logic control executing a logic control program and operable to process messages of a particular transport protocol;

a codec specialized in the transport protocol of a media gateway and operable to parse and format the messages according to the transport protocol; and

a filter operable to filter and route signaling messages from the codec to the logic control.

11. (Original) The softswitch, as set forth in claim 10, wherein the transport protocol is media gateway control protocol.

12. (Original) The softswitch, as set forth in claim 10, wherein the transport protocol is Internet protocol device control protocol.

13. (Original) The softswitch, as set forth in claim 10, wherein the transport protocol is simple gateway control protocol.

14. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, wherein the networks comprise a public switched telephone network.

15. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, wherein the networks comprise a packet network.

16. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, wherein the networks comprise a wireless network.

17. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, wherein the call agent comprises a protocol-independent logic engine operable to execute a function-specific logic control program.

18. (Currently Amended) The softswitch, as set forth in claim ~~1,~~ 3, further comprising a billing sub-system in communication with the call agent and operable to generate call detail records.

Claims 19.-36. (Canceled)

37. (Original) A softswitch interconnecting networks of different transport and signaling protocols, comprising:

a signaling agent coupled to the networks and operable to receive incoming signaling messages, translate the incoming signaling messages to a call event, and route the call event;

a call agent in communication with the signaling agent and operable to receive the call event, verify the validity of incoming circuits of inbound calls, generate a request for an outgoing resources for establishing data sessions;

a network directory server in communication with the call agent and operable to receive the request for an outgoing resource, and provide information on the outgoing resource;

a network gateway agent operable to receive a request to establish a data session on the selected outgoing resource, and set up an open session; and

the call agent operable to terminate the data sessions on the requested outgoing resources, and generate a call detail record in response to disconnecting the data session.

38. (Original) The softswitch, as set forth in claim 37, further comprising a resource manager operable to receive outgoing resource requests from the call agent, and provide outgoing resource availability responses to the call agent.

39. (Original) The softswitch, as set forth in claim 37, wherein the network directory server is further operable to receive requests for address resolution to establish data sessions from the call agent, and provide address resolution responses to the call agent.

40. (Original) The softswitch, as set forth in claim 37, wherein the signaling agent comprises:

a logic control executing a logic control program and operable to process signaling messages of a particular signaling protocol;

a codec specialized in the signaling protocol of an access network and operable to parse and format signaling messages according to the signaling protocol; and

a filter operable to filter and route signaling messages from the codec to the logic control.

41. (Original) The softswitch, as set forth in claim 40, wherein the signaling protocol is SS7.

42. (Original) The softswitch, as set forth in claim 40, wherein the signaling protocol is session initiation protocol.

43. (Original) The softswitch, as set forth in claim 40, wherein the signaling protocol is H.323.

44. (Original) The softswitch, as set forth in claim 37, wherein the network gateway comprises:

a logic control executing a logic control program and operable to process messages of a particular transport protocol;

a codec specialized in the transport protocol of a media gateway and operable to parse and format the messages according to the transport protocol; and

a filter operable to filter and route signaling messages from the codec to the logic control.

45. (Original) The softswitch, as set forth in claim 44, wherein the transport protocol is media gateway control protocol.

46. (Original) The softswitch, as set forth in claim 44, wherein the transport protocol is Internet protocol device control protocol.

47. (Original) The softswitch, as set forth in claim 44, wherein the transport protocol is simple gateway control protocol.

48. (Original) The softswitch, as set forth in claim 37, wherein the networks comprise a public switched telephone network.

49. (Original) The softswitch, as set forth in claim 37, wherein the networks comprise a packet network.

50. (Original) The softswitch, as set forth in claim 37, wherein the networks comprise a wireless network.

51. (Original) The softswitch, as set forth in claim 37, wherein the call agent comprises a protocol-independent logic engine operable to execute a function-specific logic control program.